

Date: Wednesday, 7/4/2007 3:27:38 PM  
 User: Eric Charbonneau

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: LEG
Job Number	: 33294		
Estimate Number	: 12511		
P.O. Number	: N/A	Part Number	: D35231
This Issue	: 7/4/2007	S.O. No.	: N/A
Prsht Rev.	: NC	Drawing Number	: D3523 UNDER REVIEW
First Issue	: N/A	Project Number	: N/A
Previous Run	: 32192	Drawing Revision	: N/A
Written By	: <i>JA/07-07-12</i>	Material	: N/A
Checked & Approved By	: <i>JA/07-07-12</i>	Due Date	: 7/11/2007
Comment	: Est Rev:A New Issue 06-08-21 EC	Qty:	1 Um: Each

# PROTOTYPE

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	M6061T6R1000	ROUND BAR 1.00"
Comment: Qty.: 0.1218 f(s)/Unit Total: 0.1218 f(s) 6061-T6 round bar 1.00" (M6061T6 round bar 1.00") Batch: <i>18147</i>		
<div style="border: 1px solid black; padding: 5px; text-align: center;">             CERTIFICATE OF CONFORMITY              REQUIRED           </div>		
2.0	HARDINGE	HARDINGE CNC LATHE SMALL
Comment: HARDINGE CNC LATHE SMALL  Machine as per folio FA697 & dwg D3523		
3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
Comment: INSPECT PARTS AS THEY COME OFF MACHINE		
4.0	QC8	SECOND CHECK HELI-COIL NOT INSERTED TO CORRECT DEPTH ok FOR TEST <b>ENGINEERING APPROVAL</b>
Comment: SECOND CHECK <i>CB 07.07.17</i>		
5.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
Comment: HAND FINISHING RESOURCE #1 Chemical Conversion Coat as per QSI 005 4.1		
6.0	POWDER COATING	POWDER COATING
Comment: POWDER COATING Powder Coat Black Sandtex (Ref: 4.3.5.7) as per QSI 005 4.3		
<i>Instal heli-coil per Dwg D3523</i> <i>1 M521209 F1-20 batch: M104996</i>		

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LEG

Job Number: 33294

Part Number: D35231

Job Number:



Seq. #:

Machine Or Operation:

Description :

7.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION

NA



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

8.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

**FOR ENGINEERING USE ONLY**

E 07.07.19

9.0

QC21

FINAL INSPECTION/W/O RELEASE



07.07.19 H

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



C 207107/18

718147

DESIGN <b>CB</b>	DRAWN BY <b>CB</b>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <b>LE</b>	APPROVED	DRAWING NO. <b>D3523</b>	REV. A SHEET 1 OF 2
DATE <b>07.06.18</b>	TITLE <b>LEG</b>		SCALE 3:2
REV A	DATE 07.06.18	DESCRIPTION NEW ISSUE	

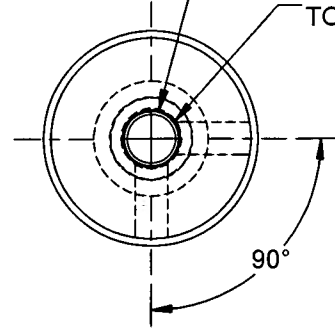
# **PROTOTYPE**

PLEASE RETURN ALL ISSUED DATA TO ENGINEERING

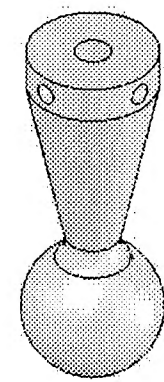
**LE 07.06.22**

DRILL #7 ( $\phi 0.201$ ) x 0.69 DEEP  
TAP HOLE FOR #10-32 HELI-COIL INSERT (RED)

INSTALL MS21209-F1-20 HELI-COIL TO THE BOTTOM OF THE HOLE

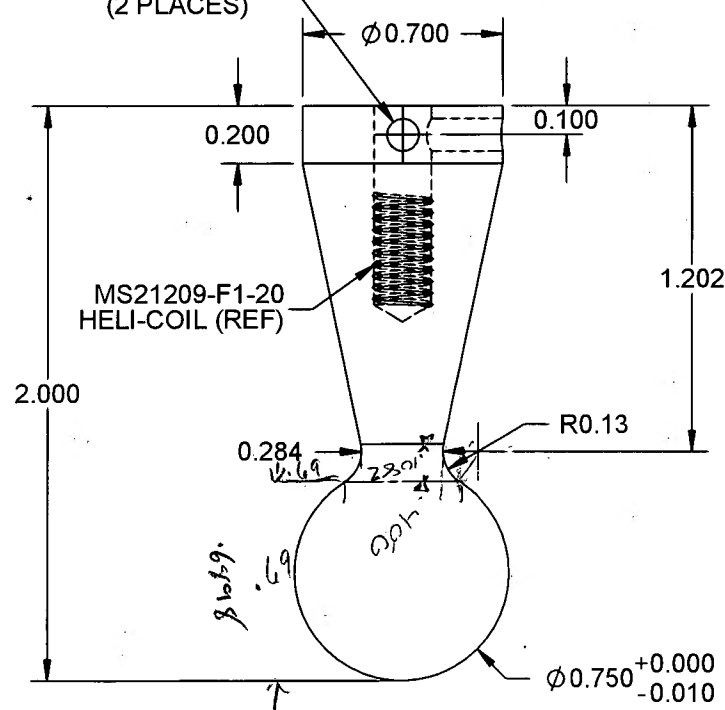


*EST Done*

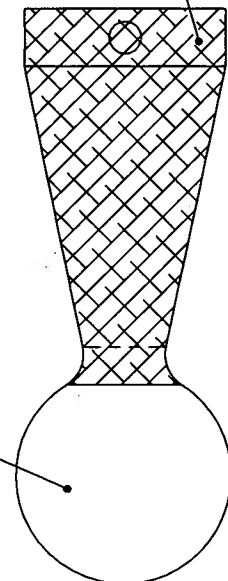


DRILL #33 ( $\phi 0.113$ )  
TAP #6-40 UNF  
(2 PLACES)

POWDER COAT AREA ABOVE BALL ONLY, WHERE HATCHED (NO POWDER COAT IN HOLES)



ENSURE SMOOTH, POLISHED SURFACE FINISH ON BALL BELOW HATCHED AREA



## **D3523-1 LEG**

### **NOTES:**

- 1) MATERIAL: ALUMINUM 6061-T6/T651/T6510/T6511/T62 ROUND BAR PER QQ-A-225/8 OR AMS 4115/4116/4117/4128 OR QQ-A-200/8 OR AMS 4160 (REF DART SPEC M6061T6R)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT PART ABOVE BALL SHAPE ONLY (HATCHED AREA, EXCEPT HOLES)  
BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP CORNERS 0.005 TO 0.015

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# Receiving Report

Date: 05/07/25  
 Supplier: Copper & Brass

Batch No: M18147  
 Dart P/O: 2008385

Packing Slip: Yes ☒ No ☐  
 Invoice: Yes ☐ No ☒  
 Receipt: Cash ☐ Cr. ☐

Release Note Attached: Yes ☒ No ☐ N/A ☐  
 Waybill Attached: Yes ☒ No ☐  
 Shipment Complete: Yes ☒ No ☐  
 Q.C. Inspection 2008385

## Discrepancies

Part No.	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
M6061T6B2.00x4.00		24	12		12	


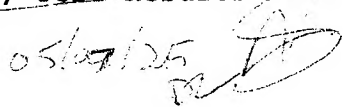
TSR No. \_\_\_\_\_

Initials of receiver (if shipment OK) DC

Production/Admin:  
 Date 05/07/28  
 Received/Costing 2-1385  
 Initial AS  
 H:\ISO9000\Forms\Purchase\RECREPORT rev B

Accounting:  
 Date \_\_\_\_\_  
 AP/MR \_\_\_\_\_  
 Initial \_\_\_\_\_

<b>SHEET</b>	0.090 THK	210 SQ. IN.	3150 SQ. IN.	6061-T6, QQ-A-200/8
<b>FLAT BAR</b>	0.125 X 1.000	37"	555" 48' sth	6061-T6, QQ-A-200/8
	0.375 X 2.750	4"	60" 5' sth	
	1.000 X 2.000	6"	90" 8' sth	
	1.000 X 2.500	6"	90" 8' sth	
	1.25 SQ.	15"	225" 20' sth	
	1.250 X 1.500	2"	30" 3' sth	
	2.000 X 2.000	2"	30" 3' sth	
	2.000 X 4.000	4"	60" 5' sth	
	1.250 x 1.125 (as 1.250) 1.50	20"	300" 60' 7075 T6 -	
<b>CORNER/ ANGLE</b>	0.090 THK X 1.00 X 1.00	24"	360" 30' 75' sth	6061-T6, QQ-A-250/8F AND10133-1002
	1.125			
<b>SHEET</b>	0.032 THK ✓	780 SQ. IN.	11700 SQ. IN.	6061-T6, QQ-A-250/11
	0.063 THK	120 SQ. IN.	1800 SQ. IN.	
	0.090 THK	920 SQ. IN.	13800 SQ. IN.	
	0.125 THK ✓	400 SQ. IN.	6000 SQ. IN.	
	0.250 THK	600 SQ. IN.	90 SQ. IN.	
<b>ROUND TUBING</b>	1.62 OD X 1.26 ID	16"	240" 70'	TEFLON

CUSTOMER 96294		SHIP DATE 07/22/05 SHP		GROSS WEIGHT 238		QUOTE 30-141895-6		OF 14		PACKING LIST	
BILL TO: DART AEROSPACE				WORK ORDER **		ORDER DATE 07/15/05 ORD		TEST RESULTS			
SHIP TO: DART AEROSPACE 1270 ABERDEEN ST HAWKESBURY ON CANADA				01		DELIVERY DATE 07/22/05 DEL		SHIP BRANCH 30-TOR		WORK ORDER UV2176	
K6A 1K7				6905 KENDERRY GATE, MISSISSAUGA ONTARIO, CANADA L5T 2Y <b>Copper and Brass Sales Canada</b> A ThyssenKrupp Materials NA company  <b>ThyssenKrupp</b>							
CUSTOMER P.O. NUMBER 2008385		TERRITORY 01		ENTRY ID 30MAC		CUSTOMER SIGNATURE		DATE			
BUYER LINDA LACELLE		INSIDE SALES MARIO A. CARREIRO		QUANTITY		ORDERED		SHIPPED			
BUYER TELEPHONE (613) 632-9577		INSIDE SALES TELEPHONE (905) 696-8100 223		INVENTORY		210.49 LB		210.00			
SHIP VIA		SHIPPING STATUS		BILLING		228.00 LF		228.00			
INTERNAL		COMPLETE X		PARTIAL		CANCEL		WAREHOUSE			
TO CUSTOMER COMMON/FRT-TST				FOB DEST		PACKED WITH OTHER GOODS					
BILL OF LADING				FREIGHT STATUS PPD		FINISHED GOODS LOCATION					
PART DESCRIPTION										018542-1	
RD 6061-T6511 EXTR ALUMINUM ROD, 1 NO PROCESSING - 144" ML, Test Results Attn to: QA Department. 											
SPECIAL INSTRUCTIONS											
"Shipping, do not place any packages or goods on top of our material."											
FULL		SCRAP		FILLED BY SC		PACKED BY		Q/A AUDIT			
CUSTOMER RECEIVING HOURS				MAX SKID WEIGHT		LOADING INSTRUCTIONS		MAXIMUM BUNDLE WEIGHT			
BOXES	BARS	CASES	CUSHP	PKGS	SKIDS	BDLS	1	TUBES	CTNS	FLAT	COILS
INSPECTION RECORD											

### TEST RESULTS

#### CERTIFICATE OF COMPLIANCE

We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products. The products we distribute are not hazardous in their received state. For MSDS sheets go to [www.copperandbrass.com/msds](http://www.copperandbrass.com/msds) or call 248-233-5682. We hereby certify that the material above complies with the following specifications:

ASTM-B221

AMS-QQ-A-200/8

TAG NO QUANTITY UOM VENDOR VEND PO HEAT/LOT  
167935 00 210.00 LB KAISER 0C94583 503A

PCS : TAG NO QUANTITY UOM VENDOR VEND PO HEAT/LOT

PCS

MARY L. TAYLOR

- General Manager: TORONTO

PRINTED 07/15/05 10:16 AM

CONTROL NO 00029

COPPER AND BRASS SALES CANADA IS A DIVISION OF THYSSENKRUPP MATERIALS, CA LTD/LIEB

KAISER ALUMINUM  
4111 S 74 E Ave  
Tulsa, OK 74145

KAISER ALUMINUM  
MATERIAL CERTIFICATION  
COPPER & BRASS SALES  
6905 KENDERRY GATE UNIT 4  
MISSISSAUGA, ON L5T2Y8

PAGE

COPPER & BRASS SALES

SOUTHFIELD

MI 48086 C94583

SOLD TO

PURCHASE ORDER

08/17/04

DATE PRINTED

SOLD TO

PURCHASE ORDER

DATE PRINTED

018542-1

CUSTOMER PART NUMBER

1.000 PRECIS ROD +/- .004 TOL

DESCRIPTION

801378-001

RELEASE-ITEM

503A 206

LOT

6061-T6511B

ALLOY/TEMPER

MECHANICAL PROPERTY RESULTS

REFERENCE	SAMPLE#	UTS (KSI)	YTS (KSI)	%Elong in 2"	HARDNESS	CONDUCT.	E
503A 206	0001 0001	53.8	51.0	11.9		N/A	N
503A 206	0001 0002	53.5	50.6	11.8		N/A	N
503A 206	0001 0003	53.6	50.6	11.9		N/A	N

CHEMICAL COMPOSITION (WT%), ALUMINUM REMAINDER

6061 LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Oth
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0

APPLICABLE REQUIREMENTS:

PER ASTM-B221-02, STENCILED  
ASME-SB221 1998 SECT II  
PER AMS-QQ-A-200/8  
UNS#6061  
MEETS ALL SPECIFICATION  
REQUIREMENTS FOR 6061-T6511  
ELEVATED MINIMUM MECHANICAL  
PROPERTIES AS FOLLOWS:  
UTS=42.0 KSI MIN  
YIELD=38.0 KSI MIN  
ELONGATION=10.0% MIN

Kaiser Aluminum & Chemical Corp. ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgment form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file, subject to examination.



**One Call Gets It All**  
**(800) 926-2600**

SALESPERSON:  
MARIO A. CARREIRO  
Ext. 223  
Fax: (905) 696-8081

## Copper and Brass Sales

A ThyssenKrupp Materials NA company



**ThyssenKrupp**

6905 KENDERRY GATE, UNIT#4 \* MISSISSAUGA ON L5T 2Y8

QUOTATION  
NO. 30-141895

06/29/2005 11:47 AM

PAGE 2

96294  
TO: DART AEROSPACE \*\*  
1270 ABERDEEN ST  
HAWKESBURY, ON K6A 1K7

SHIP TO: DART AEROSPACE  
1270 ABERDEEN ST  
HAWKESBURY, ON K6A 1K7

ATTENTION: LINDA LACELLE, (613)632-9577

\*\*\* DELIVERY CONTINGENT UPON DATE ORDERED

ITEM	QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL	DELIVERY DATE
5	300.00 LF  121.41 LB  25.00 PC	<del>6061-T6 DRAWN SEAMLESS ALUMINUM TUBE</del> <del>044697 - 1-3/4 OD X .065 WALL</del> <del>NO PROCESSING - 144" ML</del> Test Results Attn to: QA Department. FOB: DESTINATION, FREIGHT- , PREPAID ASTM-B210, AMS 4082, WW-T-700/6F	2.6500 LF	\$795.00	07/05/2005
6	400.58 LF  108.20 LB  19.00 PC	SQUARE 6063-T52 ALUMINUM TUBE 046788 - 1"SQ OD X .062 WALL X 253 ✓ NO PROCESSING - 253" ML ** PLEASE NOTE ALTERNATIVE OFFERED ** Test Results Attn to: QA Department. FOB: DESTINATION, FREIGHT- , PREPAID ASTM-B221, AMS-QQ-A-200/9	0.8600 LF	\$344.50	07/05/2005
7	63.25 LF  32.46 LB  3.00 PC	SQUARE 6061-T6 EXTR ALUMINUM TUBE 045689 - 1 X .125 X 253 ✓ NO PROCESSING - 253" ML ✓ Test Results Attn to: QA Department. FOB: DESTINATION, FREIGHT- , PREPAID ASTM-B221, AMS-QQ-A-200/8	1.5200 LF	\$96.14	07/07/2005
8	228.00 LF  210.49 LB  19.00 PC	RD 6061-T6511 EXTR ALUMINUM ROD 018542 - 1 (+-.005) ✓ NO PROCESSING - 144" ML ✓ Test Results Attn to: QA Department. FOB: DESTINATION, FREIGHT- , PREPAID ASTM-B221, AMS-QQ-A-200/8	2.1600 LF	\$492.48	07/05/2005

PRICES ARE QUOTED AS PRICE IN EFFECT AT TIME OF SHIPMENT.

TERMS : NET 30

PLEASE REVIEW THE ABOVE ITEMS FOR ACCURACY

Our standard terms and conditions apply should this quote become an order.

For terms & conditions, please refer to our web site at [www.copperandbrass.com](http://www.copperandbrass.com)

Any obvious damage must be noted on the material delivery documentation at the time of receipt. Tax exemption status documentation must be forwarded to credit department prior to order approval. All returned material subject to re-stock charge.